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July 19, 1996

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Ex Parte

Mr. William F. Caton
Acting Secretary
1919 M Street, NW, Room 222
Washington, D.C. 20554

Re: Ex Parte CC Docket No. 96-112, Allocation of Costs Associated with LEC Provision of Video Programming Services

Dear Mr. Caton:

BellSouth hereby submits for the record this letter and the attached Declaration of Dan L. King, Executive Director - Infrastructure Planning for BellSouth Telecommunications, Inc. Mr. King is responsible for the planning and engineering guidelines that govern BellSouth's deployment of network facilities.

Mr. King's Declaration addresses from BellSouth's perspective the serious misconceptions manifested in this proceeding regarding local exchange carriers' ("LECs") network planning, construction, and utilization practices. In particular, he addresses misconceptions regarding the amount of capacity available in BellSouth's network relative to projected market requirements for telephone services. These misconceptions have provided the basis for parties in this docket to advocate policies and rules that will frustrate the Commission's pursuit of the goals of the Telecommunications Act of 1996, *viz.*, encouraging LECs to invest in broadband networks and promoting LECs' provision of video programming services in competition with incumbent cable operators.

Parties seeking to discourage LECs' provision of broadband facilities and competitive video programming services urge the Commission to implement rules that will undermine the business case for such investment and effectively recreate the ban on telephone company provision of video programming services in competition with incumbent cable operators. Such parties allege that LECs have deployed excess capacity that is now available for use in the delivery of video programming services. Mr. King concludes, however, that virtually all usable and idle facilities in BellSouth's Public Network infrastructure are earmarked for anticipated telephone service growth and are not excess. He also concludes that no transport electronics or switching systems, and virtually no fiber optic cables, placed prior to the initiation of price cap regulation (*i.e.*, prior to July 1, 1990) are available for use in the

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provision of video programming services. Mr. King's Declaration soundly refutes suggestions that BellSouth has excess capacity that can be used for video programming or other unregulated services at no cost to BellSouth's shareholders.

The evidence presented by Mr. King's Declaration is critical to understanding a fundamental issue in this proceeding: Who bears the cost and risk of BellSouth's decisions to provide video programming services or other unregulated services? Any analysis of this issue based on economic principles can lead to only one conclusion: Because the decision to provide such services consumes current resources that may be used for other purposes, the cost and risk of loss associated with such decisions falls squarely on BellSouth and its shareholders, not its telephone ratepayers. Under price cap regulation, there is no mechanism for shifting those costs or risks to telephone ratepayers.

This economically principled conclusion has been obscured by allegations that LECs such as BellSouth have deployed massive quantities of facilities, particularly fiber optic facilities, far in excess of those required for the provision of regulated telephone services. These allegations are usually accompanied by assertions that LECs have purchased such facilities with ratepayer money and that ratepayers are entitled to compensation for the unregulated use of those facilities. Conceptually related to these contentions is the further contention that telephone ratepayers are entitled to share in economies of scope that LECs derive from the integrated provision of regulated and nonregulated services. These contentions are then used to argue that a LEC's provision of nonregulated services should lead to a reduction in telephone rates through an exogenous adjustment under price cap rules.

For these contentions to have any merit at all, the Commission must find that telephone ratepayers bear the cost of LECs' integrated provision of regulated and nonregulated services or the associated risk of loss. The Commission cannot make such a finding without evidence demonstrating that LECs have deployed significant quantities of capacity that is not being used and that is not required for anticipated growth in demand for regulated telephone services and that such deployment of that capacity has caused, or will cause, rates for telephone service to be higher than they would have been, or would be, in the absence of such deployment. There is no such evidence in the record.

Indeed, Mr. King's Declaration rebuts the notion that BellSouth has any significant quantities of capacity that either is not currently being used to provide regulated services or is not required to meet anticipated demand for regulated services. Network investment is "lumpy" and almost invariably results in spare, but by no means excessive, network capacity. The requirements of prudent business practice and rational network planning dictate that plant be built ahead of anticipated market demand. This implies that at any given time there will be unused network capacity. Mr. King declares further that unanticipated growth in demand for regulated services has already absorbed more capacity than expected, that current reserve capacity is less than planned, and that unused capacity now available will be exhausted well ahead of when originally anticipated

Such unused capacity is, of course, not "free" to be used to provide video services, but could be diverted to such unplanned purposes only by incurring the opportunity cost of not having that capacity available to satisfy growth in demand for regulated services. BellSouth's use of spare facilities required for future telephony growth for non-telephone services will require new investment to advance future capacity additions (or reinforcement). Under price cap regulation, that cost is borne entirely by BellSouth's shareholders, and no risk of loss is imposed on telephone ratepayers. There is, therefore, no basis for finding that telephone ratepayers have borne the cost of any excess capacity that can now be used for unregulated services or that they bear any risk of loss from BellSouth's provision of such services. If they bear no cost or risk of loss, there is no legal basis for administratively assigning to telephone ratepayers any of the economic benefit from the integrated provision of regulated and unregulated services.

Mr. King's Declaration also provides evidence that leads to the conclusion that an exogenous adjustment under the price cap rules would not be justified and would arbitrarily penalize LECs for investing in broadband infrastructure and providing video programming services. BellSouth's existing investment has been prudently made for the provision of telephone services. If BellSouth enters the video programming business, it will incur additional investment costs for all of the required capacity - either immediately or by advancing future investments in capacity - but will have no means to shift those costs or the risk of loss on that investment to telephone ratepayers.

Nevertheless, if the Commission adopts cost allocation rules that allocate common cost pools based on a fixed factor, BellSouth's entry into video programming will immediately trigger a reallocation of a substantial portion of existing investment to nonregulated categories - even though that investment continues to be required for existing or forecasted telephony demand. If the Commission requires an exogenous adjustment based on this reallocation, BellSouth may be required to reduce its rates for telephone services even though it has not reduced the actual investment devoted to such services. That result would be punitive, as well as arbitrary and capricious, and would discourage infrastructure investment and competitive entry.

Finally, BellSouth would like to clarify a statement in BellSouth's Comments (filed May 31, 1996). At page 19, BellSouth stated:

> The investment information for allocating such joint costs is not maintained at the exchange level. Recording costs on an exchange-by-exchange basis would be costly and burdensome.

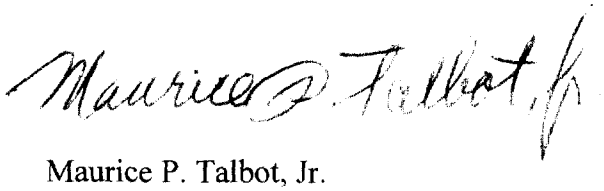
Although this statement continues to be correct, it may suggest that investment data at the wirecenter level cannot be obtained. Such an inference would not be correct. The cost allocation approach in BellSouth's existing Cost Allocation Manual does not require system changes because it uses a method that produces the same results regardless of whether it is applied at the wirecenter level or at the study area level. BellSouth's method remains less costly and less burdensome than making system changes to produce investment information

at the wirecenter level. BellSouth, however, can make system changes to obtain investment information at the wirecenter level for the purpose of applying an allocation factor, if necessary.

Pursuant to Section 1.1206(a)(1) of the Commission's Rules governing written ex parte presentations, two copies of this letter and the Declaration of Dan L. King are attached for inclusion in the public record in the above-captioned proceeding. Copies of this letter and the Declaration of Dan L. King are also being provided to FCC staff on the attached Distribution List.

Should you have any questions regarding this matter, please contact me.

Sincerely,



Maurice P. Talbot, Jr.
Executive Director - Federal Regulatory

Attachments

cc: see attached Distribution List

Distribution List
for
Declaration of Dan L. King
CC Docket No. 96-112
July 19, 1996

Ken Ackerman
James Coltharp
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Daniel Gonzalez
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Debra Weber
Debra Weiner
Christopher Wright

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Allocation of Costs Associated with	)	CC Docket No. 96-112
Local Exchange Carrier Provision of	)	
Video Programming Services	)	

Declaration of Dan L. King

I, Dan L. King, declare as follows:

I am Executive Director - Infrastructure Planning for BellSouth Telecommunications, Inc. I am responsible for the planning and engineering guidelines that govern the deployment of infrastructure facilities (*e.g.*, switching systems, interoffice cables, multiplexers, transport loop plant, etc.) in the Public Network. I address with respect to BellSouth allegations that local exchange carriers have deployed substantial excess capacity that can be readily utilized to provide non-regulated video programming services. I conclude that virtually all usable and idle facilities in BellSouth's Public Network infrastructure are earmarked for anticipated growth and are not excess. I also conclude that no transport electronics or switching systems, and virtually no fiber optic cables, placed prior to the initiation of price cap regulation (*i.e.*, prior to July 1, 1990) are available for use in the provision of video programming services. Suggestions that BellSouth has excess capacity that can be used for video programming or other unregulated services are unfounded.

In BellSouth's case, the Public Network infrastructure necessary to provide video programming services over a land-based network includes fiber optic cables, transport electronics and switching facilities. Support structures are also required; however, this investment is relatively small and is not addressed in this declaration.

Transport Electronics and Switching

The costs of transport electronics and switching systems comprise a large portion of the network costs of delivering video programming services. Specifically, the necessary infrastructure includes SONET transport electronics (*e.g.*, multiplexers, transmitters, and receivers) and broadband (*e.g.*, ATM) switches. In 1990, no ATM switches or SONET facilities existed in BellSouth. Hence, virtually none of BellSouth's pre-July 1990 investment in such facilities is suitable for these services.

With few exceptions, BellSouth has determined that it is economically prudent to deploy transport electronics to accommodate relatively near-term demand. Because of rapid technological advancement, electronic equipment

has a relatively short economic life. For example, one third of the total transport electronics investment existing on January 1, 1990, was retired from service by January 1, 1996. Additionally, the majority of the cost of transport electronics and switching systems lies in the plug-in cards. This modularity allows additional capacity to be added when and where needed, rather than during initial installation.

The short life-cycle and modular nature of this equipment dictate that it be deployed for the purpose at hand (*i.e.*, traditional telephony) and sized to accommodate current needs plus near-term growth. The end result is that virtually none of BellSouth's transport electronics and switching equipment currently in service is capable of or available to provide video programming services. The residual investment that could technically carry video signals does not have sufficient capacity to accommodate the demand load required. Deployment of video programming services in BellSouth will require the placement of new transport electronics and switching equipment.

Fiber Optic Cables

Fiber cable tends to get the lion's share of attention. The fact of the matter is that the cost of the fiber cable is small relative to the total cost to deploy either telephony or video services. Additionally, little of BellSouth's pre-July 1990 investment in fiber facilities is available to provide video programming services. Moreover, the alleged excess spare capacity in fiber cables is not excess or spare at all.

Very little of BellSouth's fiber facilities are available for use in providing video programming services. Prior to July 1990, most fiber facilities were interoffice facilities. Also prior to July 1990, less than 5 percent of BellSouth's feeder plant, and none of its distribution plant, utilized fiber facilities. The fiber cables in service as of July 1990 were typically sized with enough capacity to accommodate 10 years worth of normal telephony growth. Since then, however, two factors have caused the rapid erosion of the planned growth capacity.

First, growth in BellSouth's territory during the 1990s has been unprecedented. This exceptionally high demand has consumed fiber growth capacity much faster than expected. For example, of 729 interoffice fiber cross-sections in over 35 metro areas, 25 percent had to be reinforced with additional fiber cable placements in just 5 years - half the time initially anticipated. Moreover, eight percent required reinforcement within just two years.

Second, retirements of fiber cable also exceeded expectations. Roughly 14 percent of the fiber facilities placed in service prior to July 1990 have been retired and are no longer available for use. While vendors often claim their fiber products will have very long services lives (Some have claimed that their cables will last 40 years.), experience does not bear this out. Road moves, defects in

earlier fiber vintages, and the higher capacity and reliability of single-mode over multi-mode have contributed to high fiber retirement rates.

Higher than expected demand and retirements have consumed much of the pre-July 1990 growth capacity available for use. All of BellSouth's fiber facilities placed in service prior to July 1990 are either in use or earmarked for growth of traditional telephony service. Virtually all of the remaining fiber facilities (*i.e.*, placed after July 1990) are similarly accounted for. Use of these facilities for video programming services or any other purpose will generally require BellSouth to advance the placement of (*i.e.*, invest in) new fiber to serve the telephony growth that these facilities were originally intended to accommodate.

What some parties have called spare capacity in fact consists of either fibers not available for any use or available idle fibers placed to accommodate anticipated future demand. When a fiber cable is placed in the feeder network, for instance, it extends from the central office to feed several remote terminal locations along the fiber route. Generally, as a remote terminal is encountered, several strands of fiber within the cable are cut, and the central office side of each cut strand is terminated in the equipment at the remote terminal. The remainder of each cut strand, while still carried within the fiber cable beyond the remote terminal, is no longer available for use. It is cut off from the central office, isolated from the Public Network, and has virtually no potential for future use.

Several parties' comments in this proceeding incorrectly assert that BellSouth and other LECs have excess capacity that can readily be used to provide video programming services. This erroneous assertion is based on a misinterpretation of data in FCC Report 43-08. This report summarizes fiber utilization in terms of total strand miles (or Km) of fiber existing and fiber strand miles in use (*i.e.*, miles of fiber lit). The strand miles (or Km) data in these reports includes those isolated and unusable fiber strands described above. This conclusion is evident from the Commission's definition of "strand miles of fiber": "the sum of the number of miles of each cable multiplied by the number of [fiber] strands [in each cable]."[1] The reported data and the Commission's definition do not account for isolated fiber strands. Any interpretation of this data as a good measure of usable idle capacity is simply wrong.

An alternate and perhaps more appropriate indication of available idle capacity is the percentage of idle fibers terminated in BellSouth's central offices. This approach correctly removes the distortion associated with isolated fibers. Another reason this approach provides a better indicator of true idle capability is that it does not factor distance into the result. For all practical purposes, fiber capacity, unlike copper capacity, is not limited by distance. Thus, distance

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[1] *Fiber Deployment Update End of Year 1994*, by Jonathan M. Kraushaar, Industry Analysis Division Common Carrier Bureau, Federal Communications Commission, July 1995.

should not be weighted into the calculation of idle capacity. For the period in question, 1991 - 1994, BellSouth's percentage of idle loop fiber strands ranges from 21 to 26 percent - far less than the 63 to 70 percent cited in the NPRM (footnote 60) and in the comments of others. At current rates of demand growth for telephone services, this spare capacity will be exhausted well before the expiration of the originally planned reinforcement intervals. (Comparable interoffice data was not available at the time of this writing.)

Due to the numerous nuances and complexities that exist in the Public Network, a procedure to measure the precise volume of idle fiber facilities does not exist and likely never will. We can only hope to get an accurate indication by looking at various indicators and understanding the limitations inherent in them. The Commission's 1994 fiber deployment analysis report (see footnote 1) devotes an entire section to understanding the limitations of the data and methods; this section is titled "Source Methods and Data Limitations." Reader caution is not just limited to this one section; throughout the report the reader is advised to exercise caution in interpreting the data and the results. The following quote is one of many such instances

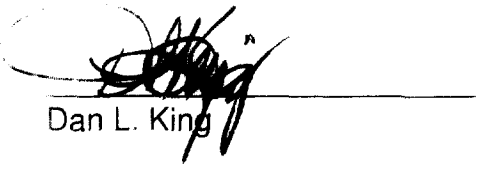
> Data on percent of fibers lit may be distorted by route redundancy and methods of reporting this data. Considerations affecting when a fiber pair is lit or equipped may vary from company to company and generally does not indicate how many circuits are presently operating.

Engineering Economics

In BellSouth, all infrastructure deployment decisions are based on sound and accepted economic practices. The situations, policies and resulting consequences that I have described in the above paragraphs are the direct result of BellSouth's adherence to sound economic principles. The economic tradeoffs affecting the decision to size Public Network facilities to accommodate an appropriate portion of anticipated future demand, for instance, are well understood and practiced in the industry and in the business community at large. Additionally, it is not economically justified to incur the additional expense necessary to eliminate the occurrence of isolated fibers in the Public Network; it is far more efficient to allow them to occur.

In the case of BellSouth's existing infrastructure, nearly all usable and idle Public Network facilities are earmarked for anticipated growth and do not represent excess capacity. Unprecedented high demand and "high normal" retirements have consumed most of the growth capacity in fiber optic cables, transport electronics and switching systems placed prior to Price Caps. Furthermore, claims that BellSouth has excess capacity are unfounded.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct to the best of my knowledge and belief this 13th day of July 1996.



Dan L. King